WHAT IS CLAIMED IS:

1. A method of increasing the deposition of aerosolized drug in the respiratory tract of an individual or animal, comprising the step of:

administering said aerosolized drug in an air mixture containing up to about 10% carbon dioxide gas.

2. The method of claim 1, wherein said air mixture contains 2.5% carbon dioxide gas.

3. The method of claim 1, wherein said air mixture contains 5% carbon dioxide gas.

4. The method of claim 1, wherein said air mixture contains 7.5% carbon dioxide gas.

5. The method of claim 1, wherein said aerosol is administered for a period of time from about 1 minute to about 30 minutes.

6. The method of claim 1, wherein said drug is aerosolized by a jet nebulizer.

7. The method of claim 1, wherein said drug is a water soluble or buffer soluble drug.

8. The method of claim 7, wherein said water soluble or buffer soluble drug is selected from the group consisting of an antibiotic, a muclolytic, a bronchodilator, a parasympathetic agent, an enzyme and an anti-viral.

9. The method of claim 1, wherein said drug is an insoluble drug delivered via a carrier.

10. The method of claim 9, wherein said carrier is selected from the group consisting of a liposome, a slow release polymer and a polycationic polymer.

11. The method of claim 10, wherein said liposome is a conventional liposome or a sterically stabilized liposome.

12. The method of claim 11, wherein said conventional liposome is formed from a lipid comprising a phosphatidylcholine or a poly(ethylene glycol) modified phospholipid.

13. The method of claim 12, wherein said phosphatidylcholine is dilauroylphosphatidylcholine.

14. The method of claim 11, wherein said sterically stabilized liposome is formed from modified phospholipids.

15. The method of claim 14, wherein said modified phospholipid is dimyristylphosphoethanolamine poly(ethylene glycol) 2000.

16. The method of claim 10, wherein said liposome carries a lipophilic drug in a liposomal formulation.

17. The method of claim 16, wherein said lipophilic drug is selected from the group consisting of amphotericin B, nystatin, glucocorticoids, an immunosuppressive and an anti-cancer drug.

18. The method of claim 17, wherein said anti-cancer drug is selected from the group consisting of camptothecin, camptothecin derivatives and paclitaxel.

19. The method of claim 1, wherein said drug is selected from the group consisting of therapeutic proteins, therapeutic peptides, DNA genes, sense oligonucleotides, anti-sense oligonucleotides and viral vectors.

20. The method of claim 19, wherein said DNA gene is chloramphenicol acetyl transferase or p53.

21. The method of claim 19, wherein said DNA gene is delivered via a polycationic polymer carrier or a cationic liposome.

22. The method of claim 21, wherein said polycationic polymer is polyethylenimine.

23. The method of claim 22, wherein said polyethylenimine has a nitrogen:phosphate ratio of about 10:1 to about 20:1.

24. The method of claim 23, wherein said polyethylenimine has a nitrogen:phosphate ratio of 10:1.